National Aeronautics and Space Administration

Lyndon B. Johnson Space Center
Houston, Texas

Double jointed

The Weightless Environment Training Facility takes training to new depths. Story on Page 3.

Web wonders

Images of planets produced by the space program are now available on the Internet. Story on Page 4.

Space News Roundup

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NASA Photo

***Columbia* arrives at Launch Pad 39B amid darkening skies at Kennedy Space Center. The shuttle is slated for liftoff of STS-75 Feb. 22. Mission objectives include the reflight of the Tethered Satellite System and the third flight of the U. S. Microgravity Payload.**

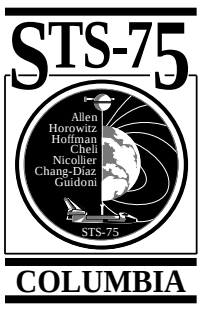
Columbia enters home stretch

Shuttle managers conducting final review today

As *Columbia* enters the home stretch of preparations toward the launch of STS-75 perhaps as early as Feb. 22, shuttle managers are holding a final Flight Readiness Review today.

A firm launch date is expected at the conclusion of the FRR.

This week, technicians at Kennedy Space Center's Launch Pad 39B completed the replacement of a fuel turbopump in *Columbia*'s main engine No. 1, loaded propellants onboard for the spacecraft's orbital propulsion system and performed a helium leak check of the shuttle main engine plumbing.



Columbia's planned 14-day mission on STS-75 will be highlighted by the deployment and retrieval of the Tethered Satellite System-1 Reflight and operations of the United States Microgravity Payload-3. A series of press conferences on the mission is scheduled to be held all day Wednesday.

The briefings, which will be carried live on NASA Television, begin with an overview of STS-75 by Lead Flight Director Chuck Shaw starting at 8 a.m. CST. At 9 a.m. will be an overview of the Tethered Satellite System, followed at 11:30 a.m. by a USMP-3 overview. At 1 p.m., a

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JSC gets lead role in shuttle, station work

By Kelly Humphries

JSC has been formally designated lead center for both the Space Shuttle and International Space Station Programs, part of a move by NASA Administrator Daniel S. Goldin to follow through on recommendations from last year's Zero Base Review and implement NASA's Strategic Plan.

Acting Associate Administrator for Space Flight Wil Trafton officially notified JSC Director George Abbey last week that he now has full responsibility for implementing the shuttle and station programs, which includes chairing all shuttle Flight Readiness Reviews, starting with today's STS-75 review at Kennedy Space Center.

"This really brings a tremendous responsibility to the center," Abbey said. "There are going to be a lot of new issues. There are going to be a lot of new challenges. Challenges bring opportunities."

New responsibilities include assigning program managers for both programs and, this week, the JSC director reaffirmed Tommy Holloway as Space Shuttle Program director, and Randy Brinkley as International Space Station Program manager.

By May 1, a full implementation plan will be developed, outlining specific tasks associated with assuming lead center duties.

"We're fortunate in having very good people here that can take on those tasks," Abbey said. "We must take care during the transition to maintain continuity and keep safety our number 1 priority."

The shift of program management to JSC follows a Jan. 24 senior management meeting in Washington, D.C. at which Goldin reiterated his intention to follow the Zero Base Review recommendations to change NASA Headquarters' role to one of concentrating on the "what" and "why" behind the agency's goals and objectives. Lead field centers are now responsible for determining "how" to implement programs in the most cost-effective manner.

The moves also support the NASA Strategic Plan, which establishes five main enterprises: Mission to Planet Earth, Aeronautics, Human Exploration and Development of Space, Space Science and Space Technology. JSC is the lead center for the Human Exploration and Development of Space.

During the coming months, a number of changes to the JSC organization structure will better position the center for its new responsibilities, Abbey said.

One key adjustment will be bringing up to speed the Space Operations Management Office led by John O'Neill, which was created following an October decision by Goldin to designate JSC as the

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Baker, Precourt to lead Mir docking missions

By Kyle Herring

Mike Baker will command STS-81, the fifth scheduled shuttle mission to dock with Russia's Mir Space Station and Charlie Precourt will command the sixth, STS-84.

On STS-81, set for December 1996, John Blaha will return from a five-month stay aboard the station and Jerry Linenger will take his place aboard the orbiting laboratory for five months. Linenger will return on STS-84 and be replaced aboard Mir by Mike Foale.

Baker

Other crew members named to join Baker, Blaha and Linenger on the STS-81 flight are Pilot Brent Jett and Mission Specialists John Grunsfeld, Marsha Ivins, and Jeff Wisoff. The remainder of Precourt's STS-84 crew will be named later.

The fifth docking mission will carry the Spacehab double module providing additional middeck locker space for secondary experiments. During the five days of docked operations with Mir, the crews will transfer water and supplies from one spacecraft to the other. A space walk by Linenger and one of his Russian cosmonaut crewmates will be conducted during his stay on the space station after *Atlantis* departs.

The sixth docking mission, also carrying the Spacehab double module, will have *Atlantis* docked with the station for five days transferring supplies and experiments between the two spacecraft in addition to the astronaut exchange.

Baker, 42, has flown three times on the shuttle—STS-43 aboard *Atlantis* in 1991, STS-52 on *Columbia* in 1992 and STS-68 on *Endeavour* in 1994. Most recently he was director at the Gagarin Cosmonaut Training Center in Star City, Russia.

Precourt, 40, has flown on two space missions including the first docking of *Atlantis* to Mir on STS-71 in 1995. His other mission was aboard *Columbia* in 1993. He currently is director of operations for NASA in Star City.

Precourt

Jett, 37, just completed his first shuttle mission, STS-72. Grunsfeld, 37, flew aboard *Endeavour* on the STS-67 mission in March 1995. Ivins, 44, will be making her fourth flight. Most recently Ivins has supported launch and landing activities at KSC.

Wisoff, 37, flew on STS-57 on *Endeavour* in 1993, and with Baker on STS-68 aboard *Endeavour* in 1994. Blaha, 53, will complete his fifth flight into space. Linenger, 41, flew on STS-64 aboard *Discovery* in 1994. Foale, 39, flew on STS-45 aboard *Atlantis* in 1992, *Discovery*'s STS-56 mission in 1993 and most recently on the

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Students shadow JSC workers, learn teamwork tools

By Mae Mangieri

Through a community partnership with Fort Bend ISD, volunteers from JSC's Education Outreach Program with engineering, mathematical and aviation backgrounds helped to give senior high school students a "behind the scenes" look at their unique space-related careers.

Sixteen students interested in aerospace careers made the one-hour drive from Sugar Land to JSC last month to spend the day shadowing "real" aerospace professionals. The 14 employees who volunteered to host the students represented the International Space Station Program Office, Mission Operations Directorate, Engineering Directorate, Flight Crew Operations Directorate and the Space and Life Sciences Directorate.

The students spent the day involved in various activities with their host employees such as attending meetings, creating computer generated graphics and visiting interesting sites such as Mission Control and space station and shuttle mock-ups. But with all the activities and sites JSC has to offer, Kelly Marshall, a senior at Dulles High School, found JSC's most interesting experience to be "all the teamwork that actually goes on behind the mission."

Marshall, an honor student who has been accepted to attend college at both the United States Air Force Academy and West Point, spent the day with Michelle Munk, an aerospace engineer in the Flight Mechanics Division. Not only did the employee take the student behind the scenes to see demonstrations of equipment an aerospace engineer uses, she also offered some real-life advice, "College teaches you how to think and you don't necessarily have to have all the right answers when you get out to your job," Munk said. "You just have to be a good team worker and know where to find the right answers."

The students were part of Fort Bend ISD's Future Quest Program, a one-day program which permits seniors to shadow a professional in a career field of their choice. The goal of the program is to give students a better understanding of a career's work environment and the importance of attitude, dress and business etiquette.

Employees interested in hosting a student for similar career investigation events can call JSC's Education Outreach Program at X32929 for more information.

JSC Photo by Andrew Patnesky

Michele Munk works with Fort Bent ISD student Kelly Marshall on the "Red Baron," a graphics workstation in the Flight Mechanics Laboratory.